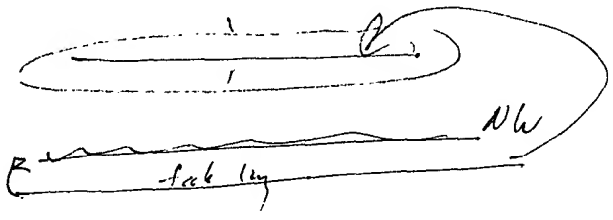
Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,DWPI; PLUR=YES; OP=ADJ			
L11	l1 and l5 and l7 and l9 and l8	82	L11
L10	(glass or basalt or polyolefin or polyamide or polyester or mineral fiber)	1298639	L10
L9	fabric or textile	376990	L9
L8	adhesive	618846	L8
L7	cementitious same material	5091	L7
L6	polyester	369072	L6
L5	nonwoven or non-woven or unwoven or un-woven	91113	L5
L4	nonwoven or non woven or non-woven or unwoven or un-woven or un woven	93442	L4
L3	$4woven not woven	26569	L3
L2	wal$2board	4198	L2
L1	MAT OR COMPOSITE OR LAMINATE	670464	L1

END OF SEARCH HISTORY

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB; PLUR=YES; OP=ADJ			
L16	l9 and l12 and l15	18	L16
L15	l11 and l7 and l8 and l14	110	L15
L14	fabric or textile	181599	L14
L13	(glass or balsalt or polyolefin or polyamide)	602959	L13
L12	adhesive	328312	L12
L11	cementitious same material	3662	L11
L10	polyester	192804	L10
L9	wallboard or wall-board	3108	L9
L8	mat or composite	284517	L8
L7	nonwoven or unwoven or non-woven or un-woven	48402	L7
DB=USPT; PLUR=YES; OP=ADJ			
L6	polyester	179472	L6
L5	wallboard or wall-board	2952	L5
L4	mat or composite	263117	L4
L3	nonwoven or unwoven or non-woven or un-woven	44058	L3
L2	(5030502 or 5220762 or 5225237 or 6176920)[pn]	4	L2
L1	(3944698 or 3993822 or 4378405 or 4020237 or 4504533 or 4544424 or 4916004)[pn]	7	L1

END OF SEARCH HISTORY



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Search Results - Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: US 6176920 B1

L2: Entry 1 of 6 File: USPT Jan 23, 2001

US-PAT-NO: 6176920
DOCUMENT-IDENTIFIER: US 6176920 B1
**** See image for Certificate of Correction ****

TITLE: Cementitious structural panel and method of its manufacture

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Murphy; Patrick B.	Maple			CA
Wypych; George	Maple			CA

US-CL-CURRENT: 106/711; 106/676, 264/257, 264/271.1, 264/333, 264/69, 264/71, 264/DIG.57, 428/113, 428/193, 428/292.1, 428/294.1, 428/294.7, 428/312.4, 428/319.1, 428/70, 428/703

ABSTRACT:

The present invention relates to a cementitious structural panel and its method of manufacture. The method of manufacture involves encapsulating a top and bottom layer of porous reinforcing material with a cementitious mixture by vibration. The structural panel may be coated with a layer of waterproof material.

15 Claims, 5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 5225237 A

L2: Entry 2 of 6 File: USPT Jul 6, 1993

US-PAT-NO: 5225237
DOCUMENT-IDENTIFIER: US 5225237 A

TITLE: Building sheets of cement material reinforced with plastics mesh and glass fibers

DATE-ISSUED: July 6, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Magnani; Silvio	Canneto Pavese			IT

US-CL-CURRENT: 442/57; 106/754, 428/703, 52/782.1

ABSTRACT:

Building sheets consisting of cement, inert materials and additives, and reinforced with plastics mesh and alkali-resistant glass fibers of short and/or continuous type, including a number of superposed elementary layers consisting of a mixture of cement, inert materials and additives and each comprising as reinforcement material a plastics mesh or glass fibers. The apparatus for preparing the building sheets includes a frame, a conveyor belt, support rollers and a slide surface for the conveyor belt, an inversion roller and a drive roller, a possible feeder for a continuous support web, a series of plastics mesh feeders, a series of feeders for glass fiber originating from bobbins, a series of cement mix metering pumps, a series of cement mix distributors and a series of smoothing devices.

13 Claims, 4 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

☐ 3. Document ID: US 5220762 A

L2: Entry 3 of 6 File: USPT Jun 22, 1993

US-PAT-NO: 5220762
DOCUMENT-IDENTIFIER: US 5220762 A
**** See image for Certificate of Correction ****

TITLE: Fibrous mat-faced gypsum board in exterior and interior finishing systems for buildings

DATE-ISSUED: June 22, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehnert; Charles W.	Stone Mountain	GA		
Randall; Brian G.	Stone Mountain	GA		

US-CL-CURRENT: 52/408; 264/133

ABSTRACT:

Gypsum-containing boards, uses for these boards, and methods for making them are provided. The board includes a set gypsum core having a fibrous glass at disposed thereon. The core includes a water-resistant additive in at least a minimum amount sufficient to impart to the board an ASTM C-473 water absorption value of less than about 10%. This additive includes organohydrogenpolysiloxane resin added with a portion of the mixing water, or otherwise added in neat form to the process for preparing the slurry.

12 Claims, 16 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

4. Document ID: US 5030502 A

L2: Entry 4 of 6 File: USPT Jul 9, 1991

US-PAT-NO: 5030502
DOCUMENT-IDENTIFIER: US 5030502 A
**** See image for Reexamination Certificate ****

TITLE: Cementitious construction panel

DATE-ISSUED: July 9, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Teare; John W.	Hamilton	OH	45011	

US-CL-CURRENT: 428/193; 428/192, 428/70, 428/703

ABSTRACT:

The invention relates to a light-weight concrete construction panel having a layer of reinforcing mesh bonded to each of the two faces. Such panels are used on walls and floors as backerboards for the installation of ceramic tile and other facing materials. In this invention the web of mesh or other fabric wraps around the edge of the panel and is bonded in place on the top and bottom faces. The strip of mesh covering the edge is left unbonded and open; when two panels are placed abutting each other the unbonded strip of mesh along the edge captures the mortar that is applied to fill the joint. This permits improved edge-to-edge bonding.

10 Claims, 7 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

5. Document ID: US 4916004 A

L2: Entry 5 of 6 File: USPT Apr 10, 1990

US-PAT-NO: 4916004
DOCUMENT-IDENTIFIER: US 4916004 A
**** See image for Reexamination Certificate ****

TITLE: Cement board having reinforced edges

DATE-ISSUED: April 10, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ensminger; Robert P.	Carman	IL		
McCleary; Robert E.	Geneva	IL		
Wenzlow-Lukasch; Ludwig	Deerfield	IL		

US-CL-CURRENT: 428/192; 428/113, 428/193, 428/703

ABSTRACT:

A cement board having bare surfaces and a mesh of reinforcing fibers underlying the top, bottom, and longitudinal edge surfaces is made continuously on an improved apparatus which comprises a pair of edger rails which slidably rest on a conveyor belt and define the path of the cement board being made on the conveyor belt and a means for folding and pressing outer margins of the bottom mesh into the edge surfaces and the top surface.

8 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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6. Document ID: US 4544424 A

L2: Entry 6 of 6 File: USPT Oct 1, 1985

US-PAT-NO: 4544424
DOCUMENT-IDENTIFIER: US 4544424 A

TITLE: Gypsum board manufacturing method

DATE-ISSUED: October 1, 1985

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Take; Takao	Chiba			JP
Kaneko; Katuaki	Tokyo			JP
Otozaki; Sigeo	Tokyo			JP

US-CL-CURRENT: 156/39; 156/284, 156/308.8, 156/42, 156/44, 427/482, 428/703

ABSTRACT:

Described is a novel gypsum board and a manufacturing method therefor by first forming a particulate layer securely adhered to the base paper for the gypsum board and by utilizing an adhesion layer which has been formed by the reaction of the particulate layer for pasting the gypsum core material on the base paper for board, so that adhesion between the core material and the base paper is enhanced as well as the strength of the gypsum board itself is improved.

1 Claims, 4 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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Term	Documents
"6176920"[USPT]	1
6176920S	0
"5225237"[USPT]	1
5225237S	0
"5220762"[USPT]	1
5220762S	0
"5030502"[USPT]	1
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"4916004"[USPT]	1
4916004S	0
"4544424"[USPT]	1
((6176920 OR 5225237 OR 5220762 OR 5030502 OR 4916004 OR 4544424)[PN]).USPT.	6

There are more results than shown above. Click here to view the entire set.

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Search Results - Record(s) 1 through 18 of 18 returned.

☐ 1. Document ID: US 20020151240 A1

L16: Entry 1 of 18 File: PGPB Oct 17, 2002

PGPUB-DOCUMENT-NUMBER: 20020151240
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020151240 A1

TITLE: Composite facer for wallboards

PUBLICATION-DATE: October 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Smith, Robert M.	Duncan	SC	US	
McLarty, George C. III	Greenville	SC	US	
Child, Andrew D.	Moore	SC	US	
Graham, Samuel E.	LaGrange	GA	US	
Hursey, W. Randolph	LaGrange	GA	US	

US-CL-CURRENT: 442/327; 442/149, 442/400, 442/401

ABSTRACT:

A composite facer material for use with cementitious wallboards, where the composite facer is embedded in a top and bottom face thereof. The composite facer material, in a most preferred embodiment, comprises two layers. The first layer is preferably a carded polyester nonwoven mat, which is bonded to a second layer comprising preferably a tri-directional laid scrim fabric reinforcement layer made of continuous glass fibers. The two layers are preferably bonded together using an acrylic adhesive, which offers superior adhesion between the layers as well as superior adhesion between the composite facing material and the cementitious core.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☑ 2. Document ID: US 20020090871 A1

L16: Entry 2 of 18 File: PGPB Jul 11, 2002

PGPUB-DOCUMENT-NUMBER: 20020090871
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020090871 A1

TITLE: Cementitious panel with basalt fiber reinforced major surface(s)

PUBLICATION-DATE: July 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ritchie, Charles Stokes	Charlotte	NC	US	
Burkard, Edward A.	East Amherst	NY	US	

US-CL-CURRENT: 442/42; 442/21, 442/25, 442/26, 442/57

ABSTRACT:

A cementitious panel having a basalt fiber-containing reinforcing web embedded in at least one major surface, preferably both major surfaces, of the panel. The basalt fibers-containing reinforcing webs preferably are in the form of a mesh or scrim comprising spaced basalt fiber strands in both the warp and fill directions, each strand made from a plurality of aligned, continuous basalt fibers. The basalt fiber reinforcing webs also can be in the form of woven or non-woven fabrics of basalt fibers, having aligned or randomly oriented staple and/or micro fibers, so long as the fabrics have sufficient void area to permit a cementitious core material to penetrate the fabric when the fabric is embedded in one or both major surfaces of the cementitious panel before the cementitious core material hardens.

☑ 3. Document ID: US 20020019181 A1

L16: Entry 3 of 18 File: PGPB Feb 14, 2002

PGPUB-DOCUMENT-NUMBER: 20020019181
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020019181 A1

TITLE: Reinforced cementitious boards and methods of making same

PUBLICATION-DATE: February 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cooper, Ian	St. Catherines		CA	
Porter, John F.	St. Catherines		CA	
Hardy, Jeremy-Jon	St. Catherines		CA	

US-CL-CURRENT: 442/43; 156/42, 264/135, 264/171.13, 264/172.15, 264/271.1, 442/2

ABSTRACT:

A composite fabric for use in reinforcement, particularly tensile reinforcement, of cementitious boards and similar prefabricated building wall panels. The fabric is constructed as a mesh of continuously coated, high modulus of elasticity strands. The high modulus strands are preferably bundled glass fibers encapsulated by alkali and water resistant thermoplastic material. The composite fabric also has suitable physical characteristics for embedment within the cement matrix of the panels or boards closely adjacent the opposed faces thereof. The fabric provides long-lasting, high strength tensile reinforcement of the panels or boards regardless of their spatial orientation during handling. The reinforcement also enhances the impact resistance of the boards after installation. Included as part of the invention are methods for making the reinforcement, cementitious boards and panels including the reinforcement, and methods for manufacturing such boards and panels.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☑ 4. Document ID: US 20010000738 A1

L16: Entry 4 of 18 File: PGPB May 3, 2001

PGPUB-DOCUMENT-NUMBER: 20010000738
PGPUB-FILING-TYPE: new-utility
DOCUMENT-IDENTIFIER: US 20010000738 A1

TITLE: Cementitious panel with reinforced edges

PUBLICATION-DATE: May 3, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mathieu, Marc-Andre	Waterloo		CA	

US-CL-CURRENT: 428/70; 156/42

ABSTRACT:

A cementitious panel comprising a cementitious core which is fabric-reinforced at the surface thereof and whose longitudinal edges are reinforced by a network of fibers. A panel may be obtained wherein the surface edge reinforcement layers are relatively strong and hard such that a nail or screw may be driven through the edge of panel without pre-drilling and without breaking, even when nailed or screwed almost at the very limit of the edge of the panel. Such a panel may provide a long lasting substrate for humid or wet areas such as shower rooms and bath rooms.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☑ 5. Document ID: US 6254817 B1

L16: Entry 5 of 18 File: USPT Jul 3, 2001

US-PAT-NO: 6254817
DOCUMENT-IDENTIFIER: US 6254817 B1

TITLE: Reinforced cementitious boards and methods of making same

DATE-ISSUED: July 3, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cooper; Ian	St. Catherines			CA
Porter; John F.	St. Catherines			CA
Hardy; Jeremy-Jon	St. Catherines			CA

US-CL-CURRENT: 264/171.13; 156/42, 264/135, 264/172.15, 264/271.1

ABSTRACT:

A composite fabric for use in reinforcement, particularly tensile reinforcement, of cementitious boards and similar prefabricated building wall panels. The fabric is constructed as a mesh of continuously coated, high modulus of elasticity strands. The high modulus strands are preferably bundled glass fibers encapsulated by alkali and water resistant thermoplastic material. The composite fabric also has suitable physical characteristics for embedment within the cement matrix of the panels or boards closely adjacent the opposed faces thereof. The fabric provides long-lasting, high strength tensile reinforcement of the panels or boards regardless of their spatial orientation during handling. The reinforcement also enhances the impact resistance of the boards after installation. Included as part of the invention are methods for making the reinforcement, cementitious boards and panels including the reinforcement, and methods for manufacturing such boards and panels.

13 Claims, 7 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☑ 6. Document ID: US 6187409 B1

L16: Entry 6 of 18 File: USPT Feb 13, 2001

US-PAT-NO: 6187409
DOCUMENT-IDENTIFIER: US 6187409 B1

TITLE: Cementitious panel with reinforced edges

DATE-ISSUED: February 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mathieu; Marc-Andre	Waterloo			CA

US-CL-CURRENT: 428/70; 428/119, 428/122, 428/192, 428/703, 442/386, 52/601, 52/800.12

ABSTRACT:

A cementitious panel comprising a cementitious core which is fabric-reinforced at the surface thereof and whose longitudinal edges are reinforced by a network of fibers. A panel may be obtained wherein the surface edge reinforcement layers are relatively strong and hard such that a nail or screw may be driven through the edge of panel without pre-drilling and without breaking, even when nailed or screwed almost at the very limit of the edge of the panel. Such a panel may provide a long lasting substrate for humid or wet areas such as shower rooms and bath rooms.

31 Claims, 28 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 12

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☐ 7. Document ID: US 6077613 A

L16: Entry 7 of 18 File: USPT Jun 20, 2000

US-PAT-NO: 6077613
DOCUMENT-IDENTIFIER: US 6077613 A

TITLE: Sound insulating membrane

DATE-ISSUED: June 20, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gaffigan; Walter J.	Baton Rouge	LA		

US-CL-CURRENT: 428/442; 156/297, 156/308.2, 156/309.9, 156/322, 181/284, 181/286, 181/290, 181/291, 181/294, 428/441, 428/476.3, 428/476.9, 428/483, 428/515, 428/516, 428/518, 428/520, 428/522, 428/523, 442/120, 52/144, 52/145, 525/213, 525/214, 525/220, 525/239

ABSTRACT:

A sound insulating membrane and processes for forming, particularly well suited for use in floor, ceiling and wall constructions. The membrane comprises at least one backing layer in contact with a layer of nonfoam polymeric material. The polymeric material has an elongation factor of about 500% to about 900% and a Shore A hardness of from about 65 to about 80 points, 5 seconds. In a preferred embodiment, the polymeric material

comprises 40-70% chlorinated polyethylene, 20-30% ethylene vinyl acetate, and up to 10% polyvinyl chloride. Floor, ceiling and wall constructions and related methods utilizing the sound insulating membranes are also disclosed.

39 Claims, 5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

☑ 8. Document ID: US 5791109 A

L16: Entry 8 of 18 File: USPT Aug 11, 1998

US-PAT-NO: 5791109
DOCUMENT-IDENTIFIER: US 5791109 A

TITLE: Gypsum board and finishing system containing same

DATE-ISSUED: August 11, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehnert; Charles W.	Fort Myers	FL		
Randall; Brian G.	Stone Mountain	GA		

US-CL-CURRENT: 52/309.17; 52/481.1, 52/796.1

ABSTRACT:

Finishing systems and roof decks are provided which include a gypsum board having a set gypsum core faced with a fibrous mat. The gypsum core includes one or more additives which are effective in simultaneously improving the water and fire resistance of the board. In preferred embodiments, the board has sufficient water-resistant additive for absorbing less than about 10% water in an ASTM C-473 test.

3 Claims, 16 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments PWIC | Draw Desc | Image

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☑ 9. Document ID: US 5704179 A

L16: Entry 9 of 18 File: USPT Jan 6, 1998

US-PAT-NO: 5704179
DOCUMENT-IDENTIFIER: US 5704179 A

TITLE: Finishing and roof deck systems containing fibrous mat-faced gypsum boards

DATE-ISSUED: January 6, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehnert; Charles W.	Fort Myers	FL		
Randall; Brian G.	Stone Mountain	GA		

US-CL-CURRENT: 52/408; 52/309.17, 52/783.1, 52/794.1

ABSTRACT:

Finishing systems and roof decks are provided which include a gypsum board having a set gypsum core faced with a fibrous mat. The gypsum core includes one or more additives which are effective in simultaneously improving the water and fire resistance of the board. In preferred embodiments, the board has sufficient water-resistant additive for absorbing less than about 10% water in an ASTM C-473 test.

20 Claims, 16 Drawing figures
Exemplary Claim Number: 3
Number of Drawing Sheets: 5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments PWIC | Draw Desc | Image

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☐ 10. Document ID: US 5644880 A

L16: Entry 10 of 18 File: USPT Jul 8, 1997

US-PAT-NO: 5644880
DOCUMENT-IDENTIFIER: US 5644880 A

TITLE: Gypsum board and systems containing same

DATE-ISSUED: July 8, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehnert; Charles W.	Fort Myers	FL		
Randall; Brian G.	Stone Mountain	GA		

US-CL-CURRENT: 52/408; 52/309.17, 52/481.1

ABSTRACT:

Finishing systems and roof decks are provided which include a gypsum board having a set gypsum core faced with a fibrous mat. The gypsum core includes one or more additives which are effective in simultaneously improving the water and fire resistance of the board. In preferred embodiments, the board has sufficient water-resistant additive for absorbing less than about 10% water in an ASTM C-473 test.

8 Claims, 16 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 11. Document ID: US 5584950 A

L16: Entry 11 of 18 File: USPT Dec 17, 1996

US-PAT-NO: 5584950
DOCUMENT-IDENTIFIER: US 5584950 A

TITLE: Sound insulating membrane

DATE-ISSUED: December 17, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gaffigan; Walter J.	Baton Rouge	LA		

US-CL-CURRENT: 156/71; 181/286, 181/291, 181/294, 442/263, 442/381

ABSTRACT:

A sound insulating membrane and processes for forming, particularly well suited for use in floor, ceiling and wall constructions. The membrane comprises at least one backing layer in contact with a layer of polymeric material. The polymeric material has an elongation factor of about 500% to about 900% and a Shore A hardness of from about 65 to about 80 points, 5 seconds. In a preferred embodiment, the polymeric material comprises 40-70% chlorinated polyethylene, 20-30% ethylene vinyl acetate, and up to 10% polyvinyl chloride. Floor, ceiling, and wall constructions and related methods utilizing the sound insulating membranes are also disclosed.

12 Claims, 5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

12. Document ID: US 5319900 A

L16: Entry 12 of 18 File: USPT Jun 14, 1994

US-PAT-NO: 5319900
DOCUMENT-IDENTIFIER: US 5319900 A

TITLE: Finishing and roof deck systems containing fibrous mat-faced gypsum boards

DATE-ISSUED: June 14, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehnert; Charles W.	Fort Myers	FL		
Randall; Brian G.	Stone Mountain	GA		

US-CL-CURRENT: 52/408; 106/772, 106/781

ABSTRACT:

Finishing systems and roof decks are provided which include a gypsum board having a set gypsum core faced with a fibrous mat. The gypsum core includes one or more additives which are effective in simultaneously improving the water and fire resistance of the board. In preferred embodiments, the board has sufficient water-resistant additive for absorbing less than about 10% water in an ASTM C-473 test.

5 Claims, 16 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

13. Document ID: US 5221386 A

L16: Entry 13 of 18 File: USPT Jun 22, 1993

US-PAT-NO: 5221386
DOCUMENT-IDENTIFIER: US 5221386 A

TITLE: Cement board having reinforced edges

DATE-ISSUED: June 22, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ensminger; Robert P.	Carman	IL		
McCleary; Robert E.	Geneva	IL		
Wenzlow-Lukasch; Ludwig	Deerfield	IL		

US-CL-CURRENT: 156/40; 156/348, 156/42

ABSTRACT:

A cement board having bare surfaces and a woven mesh of reinforcing fibers underlying the top, bottom, and longitudinal edge surfaces is made continuously on an improved apparatus which comprises a pair of edger rails which slidably rest on a conveyor belt and define the path of the cement board being made on the conveyor belt and a means for folding and pressing outer margins of the bottom mesh into the edge surfaces and the top surface.

14 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments PWIC | Draw Desc | Image

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☑ 14. Document ID: US 5220762 A

L16: Entry 14 of 18 File: USPT Jun 22, 1993

US-PAT-NO: 5220762
DOCUMENT-IDENTIFIER: US 5220762 A

TITLE: Fibrous mat-faced gypsum board in exterior and interior finishing systems for buildings

DATE-ISSUED: June 22, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehnert; Charles W.	Stone Mountain	GA		
Randall; Brian G.	Stone Mountain	GA		

US-CL-CURRENT: 52/408; 264/133

ABSTRACT:

Gypsum-containing boards, uses for these boards, and methods for making them are provided. The board includes a set gypsum core having a fibrous glass at disposed thereon. The core includes a water-resistant additive in at least a minimum amount sufficient to impart to the board an ASTM C-473 water absorption value of less than about 10%. This additive includes organohydrogenpolysiloxane resin added with a portion of the mixing water, or otherwise added in neat form to the process for preparing the slurry.

12 Claims, 16 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments PWIC | Draw Desc | Image

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☐ 15. Document ID: US 5130184 A

L16: Entry 15 of 18 File: USPT Jul 14, 1992

US-PAT-NO: 5130184
DOCUMENT-IDENTIFIER: US 5130184 A

TITLE: Fire barrier coating and fire barrier plywood

DATE-ISSUED: July 14, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ellis; Harold	Miami	FL		

US-CL-CURRENT: 442/295; 106/18.12, 106/18.26, 252/607, 252/608, 252/609, 252/610, 428/332, 428/535, 428/703, 428/920, 428/921, 442/413

ABSTRACT:

A novel, non-combustible thin coating, applied as an air-setting paint, is used to form a coherent fire-barrier on or between susceptible wood or plastic substrates, or other substances. Consisting of a paint-like slurry of three separate but compatible and mutually synergistic co-bonding systems, viz. magnesium "oxychloride" cement, plus high alumina mono-calcium aluminate cement, plus colloidal silica dispersed in dimethyl formamide (DMF), and utilizing an aqueous solution of magnesium chloride as the common hydrating fluid for the two cements, the coating retains its structural integrity through prolonged exposure to flame temperatures of 2000.degree. F. The coating takes advantage of its brilliant whiteness to act as a thermal radiation reflector for the high radiation component of most flames. Used alone, or in combination with structural reinforcing geotextiles, such as non-woven spunbonded polyester fabric, or woven and non-woven fiberglass or other natural or synthetic fabrics to form a laminate, the coating, while serving only transitorily as a heat barrier, effectively prevents the ignition of and flame spread of fire on the coated substrate. When placed between substrates at the partial sacrifice of the surface directly exposed to flame, it protects the back-substrate, and thus maintains structural integrity, as well as preventing the spread of flame to adjacent areas. The coating thus acts as a "fire-barrier" for which there are numerous applications.

12 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 16. Document ID: US 4916004 A

L16: Entry 16 of 18 File: USPT Apr 10, 1990

US-PAT-NO: 4916004
DOCUMENT-IDENTIFIER: US 4916004 A

TITLE: Cement board having reinforced edges

DATE-ISSUED: April 10, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ensminger; Robert P.	Carman	IL		
McCleary; Robert E.	Geneva	IL		
Wenzlow-Lukasch; Ludwig	Deerfield	IL		

US-CL-CURRENT: 428/192; 428/113, 428/193, 428/703

ABSTRACT:

A cement board having bare surfaces and a mesh of reinforcing fibers underlying the top, bottom, and longitudinal edge surfaces is made continuously on an improved apparatus which comprises a pair of edger rails which slidably rest on a conveyor belt and define the path of the cement board being made on the conveyor belt and a means for folding and pressing outer margins of the bottom mesh into the edge surfaces and the top surface.

8 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

17. Document ID: US 4818595 A

L16: Entry 17 of 18 File: USPT Apr 4, 1989

US-PAT-NO: 4818595
DOCUMENT-IDENTIFIER: US 4818595 A

TITLE: Fire barrier coating and fire barrier plywood

DATE-ISSUED: April 4, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ellis; Harold	Miami	FL		

US-CL-CURRENT: 442/68; 106/688, 106/695, 428/703, 428/920, 428/921, 442/136, 442/180

ABSTRACT:

A novel, non-combustible thin coating, applied as an air-setting paint, is used to form a coherent fire-barrier on or between susceptible wood or plastic substrates, or other substances. Consisting of a paint-like slurry of three separate but compatible and mutually synergistic co-bonding systems, viz. magnesium "oxychloride" cement, plus high alumina mono-calcium aluminate cement, plus colloidal silica dispersed in dimethyl formamide (DMF), and utilizing an aqueous solution of magnesium chloride as the common hydrating fluid for the two cements, the coating retains its structural integrity through prolonged exposure to flame temperatures of 2000.degree. F. The coating takes advantage of its brilliant whiteness to act as a thermal radiation reflector for the high radiation component of most flames. Used alone, or in combination with structural reinforcing geotextiles, such as non-woven spunbonded polyester fabric, or woven and non-woven fiberglass or other natural or synthetic fabrics to form a laminate, the coating, while serving only transitorily as a heat barrier, effectively prevents the ignition of and flame spread of fire on the coated substrate. When placed between substrates at the partial sacrifice of the surface directly exposed to flame, it protects the back-substrate, and thus maintains structural integrity, as well as preventing the spread of flame to

adjacent areas. The coating thus acts as a "fire-barrier" for which there are numerous applications.

21 Claims, 0 Drawing figures
Exemplary Claim Number: 1,14

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

18. Document ID: US 4572862 A

L16: Entry 18 of 18 File: USPT Feb 25, 1986

US-PAT-NO: 4572862
DOCUMENT-IDENTIFIER: US 4572862 A

TITLE: Fire barrier coating composition containing magnesium oxychlorides and high alumina calcium aluminate cements or magnesium oxysulphate

DATE-ISSUED: February 25, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ellis; Harold	Miami	FL		

US-CL-CURRENT: 442/136; 106/686, 106/688, 106/695, 428/703, 428/920, 428/921

ABSTRACT:

A novel, non-combustible thin coating, applied as an air-setting paint, is used to form a coherent fire-barrier on or between susceptible wood or plastic substrates, or other substances. Consisting of a paint-like slurry of three separate but compatible and mutually synergistic co-bonding systems, viz. magnesium "oxychloride" cement, plus high alumina mono-calcium aluminate cement, plus colloidal silica dispersed in dimethyl formamide (DMF), and utilizing an aqueous solution of magnesium chloride as the common hydrating fluid for the two cements, the coating retains its structural integrity through prolonged exposure to flame temperatures of 2000.degree. F. The coating takes advantage of its brilliant whiteness to act as a thermal radiation reflector for the high radiation component of most flames. Used alone, or in combination with structural reinforcing geotextiles, such as non-woven spun-bonded polyester fabric, or woven and non-woven fiberglass or other natural or synthetic fabrics to form a laminate, the coating, while serving only transitorily as a heat barrier, effectively prevents the ignition of and flame spread of fire on the coated substrate. When placed between substrates at the partial sacrifice of the surface directly exposed to flame, it protects the back-substrate, and thus maintains structural integrity, as well as preventing the spread of flame to adjacent areas. The coating thus acts as a "fire-barrier" for which there are numerous applications.

18 Claims, 0 Drawing figures
Exemplary Claim Number: 1,15

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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